

**MODEL ASU-4
AIR SAMPLING UNIT**

The Air Sampling Unit (ASU) is intended for simultaneous air sampling from 4 different locations. A portion of the sampled air is routed to a Tritium Monitor. Air can be sampled from a location up to 60m away. The ASU is a wall mount NEMA 12 enclosure. The enclosure has a hinged door that is furnished with a tempered glass window providing a view to the inside of the enclosure in order to visually check the air flow rate setting and signal lights. The enclosure is a double-hinged design, so that it can be opened for service.



Features include the following:

Components Installed in a Rugged, Wall Mount Industrial NEMA 12 Enclosure

Auto and Local Control Modes

Programmable Logic Controllers

Programmable Display with a Color LCD Screen

Flow Meters and Filters

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TECHNICAL SPECIFICATIONS

Air Flow Rate	3-25 LPM, Nominal Setting 10 LPM
Operational Temperature Range	10° to 40°C
Operating Principle	Air sample is pulled by a pump from 4 different locations into a manifold and then sent out through the exhaust line, which is sampled by a tritium monitor. Each flow rate from 4 inlet lines is adjusted by air flow meter. There is a separate purge air inlet.
Air Mixing Manifold	Built from aluminum bar stock with 5 inlets and one outlet. Inlets are for 4 sample lines and one purge line. The outlet is connected to the pump inlet.
Flow Meter	Polycarbonate body flow meter, with stainless steel valve, adjustable range from 1 to 25 LPM.
Filters	Respirator cartridge type HEPA filter for all four sample inlets and one purge inlet. Connection fittings are 1/4" SS Swagelok fittings.
Enclosure	NEMA 12 rated, 24" [600mm] wide x 18.8" [478mm] high x 22.56" [573mm] deep
Differential Pressure Switch	Diaphragm pressure switch used to detect low flow. Set point is ~ 5 LPM
Programmable Logic Controller (PLC)	Panasonic PLC with relay outputs, powered by a 24VDC power supply for. PLC also has RS232 serial data output for future expansion to include remote Capability.
Pump	Thomas reciprocating piston pump, model 2688CE44, 470W, 115VAC, 60Hz
Solenoid Valves	Brass body, nitrile rubber seals
Weight	130 lb [59 Kg]